CLAIMS

What is claimed is:

1. A battery retention system comprising:

a top mount retainer formed for positive positioning on an upper surface of a battery having a first configuration, the top mount retainer being reinforced for bearing a downwardly clamping force without crushing and distributing the force over the upper surface of the battery; and

a U-shaped rod adapted to fasten at each end to a battery support and span over the battery, oriented over the top mount retainer and exerting a downward force to secure the battery to the battery support, the force generated by a bending moment in the rod imposed by bearing on the top mount retainer.

2. The battery retention system of claim 1, wherein the top mount retainer further distributes the force to structural sidewalls of the battery.

3. The battery retention system of claim 1, wherein the rod has a hook on a first end and an eye on a second end for attachment to the battery support.

4. The battery retention system of claim 1, wherein the top mount retainer is adapted for positive positioning on a battery having a second configuration.

5. The battery retention system of claim 4, wherein the top mount retainer further comprises a well on an upper surface thereof for receiving the rod, the well being adapted to receive a spacer for adapting the retention system for use with the battery having the second configuration.

6. The battery retention system of claim 5, wherein the well is adapted to receive a coin as the spacer.

7. The battery retention system of claim 5, wherein the well further includes an indexing indicator for identifying a height of spacer required to adapt the retention system to the battery having the second configuration.

8. The battery retention system of claim 4, wherein the battery having the second configuration includes upwardly projecting posts, and wherein the top mount retainer further includes outwardly extending ears for centering the top mount retainer between the posts.

9. The battery retention system of claim 4, wherein the battery having the first configuration includes cell caps on an upper surface thereof including beveled corners, and wherein the top mount retainer is further configured with a corresponding formation on an underside thereof for engaging the beveled corners to positively position the top mount retainer on the battery.

10. The battery retention system of claim 9, wherein the battery having the second configuration includes cell caps on an upper surface thereof lacking the beveled corners of the first configuration, and wherein the corresponding formation on the underside of the top mount retainer for engaging the beveled corners of the first configuration is further adapted to engage the cell caps of the second configuration to positively position the top mount retainer on the battery.

11. The battery retention system of claim 9, wherein the top mount retainer further comprises a depending lip on the underside thereof for positioning the top mount retainer relative to a sidewall of the battery.

12. The battery retention system of claim 1, wherein the battery having the first configuration includes upwardly projecting posts, and wherein the top mount retainer further includes outwardly extending ears for centering the top mount retainer between the posts.

13. The battery retention system of claim 1, wherein the battery having the first configuration includes cell caps on an upper surface thereof including beveled corners, and wherein the top

mount retainer is further configured with a corresponding formation on an underside thereof for engaging the beveled corners to positively position the top mount retainer on the battery.

14. The battery retention system of claim 1, wherein the top mount retainer is further formed with integral longitudinal ribs for distributing force to sidewalls of the battery.

15. A retention assembly for mounting a battery in a vehicle, the assembly comprising:

a bracket for mounting to a side rail of the vehicle;

a top mount adapter for aligning over the battery; and

a rod for operably connecting to the bracket and for spanning the battery and bearing down on the top mount adapter for securing the battery to the bracket, a holding force of the rod being distributed over the top of the battery through the top mount adapter to preclude crushing of the battery.

16. The retention assembly of claim 15, further comprising a battery tray for attaching to the bracket and for receiving the battery.